ABSTRACT

A low-EMI circuit which realizes a high mounting density by converting the potential fluctuation of a power supply layer with respect to a ground layer which occurs on switching an IC device etc., into Joule's heat in the substrate without using any parts as a countermeasure against the EMI. Its structure, a circuit board using it, and a method of manufacturing the circuit board are also disclosed. Parallel plate lines in which the Q-value of the stray capacitance between solid layers viewed from the power supply layer and ground layer is equivalently reduced and which are matchedly terminated by forming a structure in which a resistor (resistor layer) and another ground layer are provided in addition to the power supply layer and the ground layer on a multilayered circuit board. A closed shield structure is also disclosed. This invention can remarkably suppress unwanted radiation by absorbing the potential fluctuation (resonance) which occurs in a power supply loop by equivalently reducing the Q-value of the stray capacitance, absorbing the standing wave by the parallel plate lines matchedly terminated and, closing and shielding the parallel plate lines.